

Appl. No.: 10/007,118
Amdt. dated: July 26, 2004
Reply date: July 30, 2004

REMARKS / ARGUMENTS

The Examiner rejected claims 1-22 as failing to comply with the written description requirement. In particular, the Examiner refers to varying the transmittance of a light valve of the display in a non-binary manner.

The present application states that "Images are displayable with an LCD because local regions of a liquid crystal layer 36 interposed between the first 32 and second 34 polarizer can be electrically controlled to alter the alignment of the plane of vibration of light relative to the optical axis of a polarizer and, thereby, modulate the transmittance of local regions of the panel corresponding to individual pixels 36 in an array of pixels." See Page 5. In addition, the Examiner notes that "As the transmittance of the light valve 26 is reduced, the pixel 38 progressively darkens until the maximum extinction of light 40 from the light source 42 is obtained."

Accordingly, the application describes that the transmittance of the light valve is varied in a non-binary manner, namely, that the light valve has more than two states (on and off). For example, a non-binary manner may be to progressively vary the transmittance of the light valve.

The Examiner rejected claims 1, 2, 4, 6, 13, 14, and 19-22 under 35 U.S.C. Section 102(e) as being anticipated by Fuller, U.S. 2002/0171617 A1.

Fuller disclose a display arrangement that includes (1) a backlight 124; (2) a stack that includes a polarizer 122, a glass substrate 120, an active matrix layer 118, a transparent electrode 116, and an alignment layer 114; (3) liquid crystal molecules; and (4) a stack that includes an alignment layer 110, a transparent electrode 108, a color filter array 106, a glass substrate 103, and an analyzer 102.

Fuller disclose that the backlight layer 124 includes an edge light source and a diffuser film. The edge light source may be an arrangement of cold cathode fluorescent tubes, an arrangement of LEDs, a combination of both or any well known source arrangement. Being an edge light source device, the backlight 124 is illuminated with light sources around a portion of its perimeter, where the lights is scattered, exits the backlight, and passes through the diffuser. In addition, the LEDs may be colored to effectuate color mixing and variable intensity level. Accordingly, the backlight layer 124 provides a uniform output across the display, albeit

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of different color or variable intensity level. See, Fuller, paragraph 34. The intensity of the light transmitted to each color filter element is determined by the liquid crystal element and the active element associated with that color filter element. See, Fuller, paragraph 39.

Claim 1 patentably distinguishes over Fuller by claiming a method of illuminating a backlit display that includes the step of spatially varying the luminance of a light source illuminating a plurality of displayed pixels in response to a plurality of intensity values of said pixels.

In contrast, Fuller disclose a display that uses a uniform backlight that is edge illuminated. There is no suggestion nor motivation in Fuller to modify this system in any manner, such that the backlight includes spatially varying luminance.

Claims 2-14 depend from claim 1, either directly or indirectly, and are patentable for the same reasons asserted for claim 1.

Claims 15-18 have been canceled, without prejudice.

Claim 19 patentably distinguishes over Fuller by claiming a light source controller to spatially modulate a luminance output of a light source element according to a relationship of said luminance output and said data value of said image pixel.

Claims 20 and 21 depend from claim 19, either directly or indirectly, and are patentable for the same reasons asserted for claim 19.

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If the Examiner believes that for any reason direct contact with applicant's attorney would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the number below.

Respectfully submitted,
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